

The Effect of Ketamine as an Adjunct to Bupivacaine in Reducing Chronic Neuropathic Pain Following Modified Radical Mastectomy

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INTRO

- Breast cancer is the most common cancer among in women.
- Chronic pain is common (20 – 50% incidence)
- IV Ketamine has been shown to reduce postoperative pain.
- Hypothesis: addition of ketamine to a pre-operative erector spinae plane block (ESP) using bupivacaine will reduce chronic post-operative pain at 3 months following MRM.**

METHODS

- Prospective randomized control study, females undergoing mastectomy
- Group I – ESP with bupivacaine, Group II – ESP with Ketamine + Bupivacaine
- Primary outcome: Incidence of chronic neuropathic pain at 3 months
- Other outcomes: Chronic neuropathic pain at 6 months, relationship between acute postoperative pain and chronic pain incidence at 3 and 6 months

RESULTS

- Reduced chronic neuropathic pain at 3 months in Ketamine group ($p<0.05$)
- Reduced chronic neuropathic pain pain at 6 months in Ketamine group($p<0.05$)
- Patients having more acute postoperative pain had more chronic pain at 3 months

DISCUSSION

- Addition of Ketamine to Bupivacaine in the pre-operative Erector Spinae block significantly reduced chronic neuropathic pain at both 3 months and 6 months.
- The correlation between lower acute pain and reduced chronic pain supports the hypothesis that better acute pain control can reduce the risk of chronic pain

Addition of **Ketamine** to ESP blocks in patients undergoing mastectomies **reduces chronic neuropathic pain at 3 and 6 months**

